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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,587	11/06/2001	Kent Ryhorchuk	014940-002410US	9311

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EXAMINER	
PAYNE, DAVID C	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/045,587	RYHORCHUK ET AL.	
	Examiner	Art Unit	
	David C. Payne	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2004*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,28 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,28 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 23 August 2004 have been fully considered but they are not persuasive.
2. After careful review of the prior art, the examiner is rejecting the application on new grounds including Merli and Fee without the Lindskog reference in the prior rejection. The examiner's line of reasoning follows.
3. In brief, Merli teaches an optical network (Figure 1a-c) that has nodes (102, 104, 106 and 108) attached via dual rings (112 and 114). Each of the nodes contain an amplifier. Each of the nodes is capable of detecting faults and forwarding that fault information to other nodes indirectly thru a network management system.

   Fee teaches an optical network (Figure 3) comprised of optical cross connects (63 and 65) and optical "amplification stations" (17a, 17b, 17c). These optical "amplification stations" (see Fee col./lines: 3/55-60) can be seen in a first embodiment as element (17) of Figure 1. Each of these stations can be properly understood as an amplification node, to use the lexicon of the applicant. Within the "amplification node" there exists "line supervisory modules" (31n of Figure 1) connected to a common element manager (43 of Figure 1), and amplifiers (23n of Figure 1). Properly understood, the amplifiers (23) are one type of element inside of the "amplifier station(node)". In contradistinction, the applicant improperly interprets the amplifier (23) as an "amplifier node". Fee further states that "line supervisory modules" (31n of Figure 1) report fault information from the element manager along their optical fibers to outbound fiber toward other nodes in the network (11). As such, the element manager is not to be misinterpreted as an network management system as in Merli, but as a element of the "amplification station", clearly seen in Figure 1.

4. Turing now to applicant's assertions: "Thus, Merli fails to teach the use of separate amplification nodes as claimed."

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "separate amplification nodes") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Furthermore, the recitation "separate" provides no guidance as to what the amplification node should be separate from. Is the applicant suggesting that an amplification node should contain no other function aside from literal amplification of signals? If so, then how can the applicant's node detect LOS and report faults without other functions at the node. Clearly, the applicant has failed to distinguish the elements to which he feels cannot exist at an amplification node.

The examiner maintains, that "amplification node" is broad terminology and does not restrict the type of functions that can exist at an "amplification node". "Amplification node", properly, requires an amplification function but does not restrict other functions as is clear from the applicant's disclosure.

Finally, Fee has been cited for the decencies of Merli. Even if the applicant were correct in his interpretation of separate amplification nodes, Fee as shown above, recites amplification stations(nodes). In addition, Fee disclosed, reporting information directly from these nodes (17 of Figure 3) to other stations attached to outgoing fibers.

5. Given that the combined teachings of Merli and Fee have been shown to teach all the limitation of the applicant's claim, the examiner contends that Lindskog is not necessary. Therefore, the applicant's arguments regarding the Lindskog reference are considered moot.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-3, 5, 8-12, 14, 17-19, 21, 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merli et al. US 6,088,141 (Merli) in view of Fee et al. US 5,914,794 (Fee).

Re claims 1, 8-10, 17, 24-26

Merli disclosed,

A system for detecting faults in an optical network, comprising: a first node (figure 1a, 102) and a second node (figure 1a, 104); and an amplifier (figure 1a, 262 or 264) coupled between the first node and the second node, the node configured to detect a fault on an optical link connecting the node and the first node and generate a fault report upon detection of the fault (e.g., col./line: 6/5-20). Merli further disclosed detecting loss of power or loss of signal (e.g., col./line: 4/35-50, 6/5-10).

Merli does not distinguish separate amplifier nodes for detecting the fault but rather incorporates amplification into each node that detects the fault. It would have been obvious to one ordinary skill in the art at the time of invention that amplifiers are used in locations comprising additional functions as well as at locations where no other functions take place. In this case, using the term "amplification

node" does not restrict a node to consisting of only amplification functions.

Furthermore, the fault monitor (figure 2 #222) communicates with the network management system (116) but does not to forward the fault report to the second node.

Fee disclosed an optical ring with fault management that communicates with an element manager (figure 1 – 43) while the fault information is propagated along the supervisory channels (figure 1 – 21a-n, e.g., col./line: 5/60-67, 6/1-6, 2/20-25). The "amplification stations" (17a, 17b, and 17c of Figure 3, see Fee col./lines: 3/55-60) which can reasonably be interpreted as "amplification nodes" are operable to detect faults and *directly* forward these faults to other stations along the network (11 of Figure 3) without a central network management system.

It would have been obvious to one of ordinary skill in the art at the time of invention that add the Fee "amplification stations" and direct fault forwarding capability to the Merli invention for the benefit of a robust and highly fault tolerant orthogonal ("bridge and ladder") detection and reporting system as discussed in Merli (e.g., col./line: 4/42-56).

Re claim 2, 11, 18

The system of Merli and Fee as discussed above is capable of forwarding error reports around failed nodes to nodes that are able to initiate a switching action to restore traffic thereby increasing fault tolerance (see Fee, e.g., col./line: 4/42-56).

Re claims 3, 12, 19

The system of Merli and Fee as discussed above disclosed wherein the fault report is forwarded until the fault report is received by a node which is capable of switching traffic. (see Fee, e.g., col./line: 5/61-67, 6/1-16).

Re claims 5, 14, 21

The system of Merli and Fee as discussed above disclosed wherein the amplifier (local node) is

further configured to receive and pass a fault report from another amplifier node to the second node.(e.g., Fee, col./line: 5/60-67, 6/1-6, 2/20-25)

8. Claims 4, 6, 13, 15, 20, 22, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merli et al. US 6,088,141 (Merli) and Fee et al. US 5,914,794 (Fee) as applied to claims 1, 10, 17 and 26 above, and further in view of Tada et al. US 5,532,862 (Tada).

Re claims 4, 6, 13, 15, 20, 22, 28

Merli and Fee do not disclose prioritizing faults. Tada disclosed a fault prioritization generation and forwarding method. It would have been obvious to one of ordinary skill in the art at the time of invention to use the Tada fault priority method with the Merli and Fee system for the benefit efficiency and reduction of time required to restore traffic in a network as discussed by Tada (e.g., col./line: 2/55-65).

9. Claims 7, 16, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merli et al. US 6,088,141 (Merli) and Fee et al. US 5,914,794 (Fee) as applied to claims 1, 10, 17 and 26 above, and further in view of Cohen et al. US 4,736,359 (Cohen).

Re claims 7, 16, 23 and 29

Merli and Fee do not disclose wherein the optical network is a bi-directional line switched ring network. Cohen disclosed a bi-directional line switched ring network with fault prioritization (e.g., col./line: 1/35-40). It would have been obvious to one of ordinary skill in the art at the time of invention to use the Cohen bi-directional line switched ring network with the Merli and Fee system for the benefit of size and weight savings as discussed by Cohen (see. Col/line: 1/35-40).

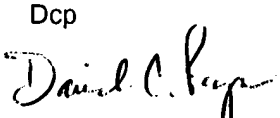
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp



David C. Payne
Patent Examiner
AU 2633